

IN THE CLAIMS:

The present listing of claims replaces all previous listings of claims.

1. (Currently amended) A method of producing carbon-encapsulated metal nanoparticles, comprising ~~the steps of~~:

providing a carbon-containing metal salt or organometallic compound in a reactor;

and

decomposing the carbon-containing metal salt or organometallic compound whilst maintaining carbon within the reactor to form carbon-encapsulated metal nanoparticles.
2. (Original) A method as claimed in Claim 1, wherein the reactor is a vessel having a restricted opening.
3. (Original) A method as claimed in Claim 2, wherein the vessel is a tube having one sealed end and one end with a restricted opening.
4. (Currently amended) A method as claimed in ~~any one of the preceding claims~~ Claim 1, wherein a unidirectional gas flow across the reaction site is prevented.
5. (Currently amended) A method as claimed in ~~any one of the preceding claims~~ Claim 1, wherein the carbon-containing metal salt or organometallic compound is decomposed under an inert gas atmosphere.
6. (Original) A method as claimed in Claim 5, wherein the inert gas is argon.
7. (Currently amended) A method as claimed in ~~any one of the preceding claims~~ Claim 1, wherein the carbon-containing metal salt is decomposed by heating.

8. (Original) A method as claimed in Claim 7, wherein heating is carried out at a temperature of 700 to 1500 °C.
9. (Currently amended) A method as claimed in ~~any one of the preceding claims~~ Claim 1, wherein the metal is iron, nickel, cobalt, ruthenium, osmium, rhodium, iridium, palladium, platinum, a lanthanide or uranium.
10. (Original) A method as claimed in Claim 9, wherein the metal is a magnetic metal.
11. (Currently amended) A method as claimed in ~~any one of the preceding claims~~ Claim 1, wherein the carbon-containing metal salt or organometallic compound contains at least 5 carbon atoms per metal atom.
12. (Currently amended) A method as claimed in ~~any one of the preceding claims~~ Claim 1, wherein the carbon-containing metal salt is a carboxylic acid metal salt.
13. (Original) A method as claimed in Claim 12, wherein the carbon-containing metal salt is a stearate or a citrate.
14. (Currently amended) Carbon-encapsulated metal nanoparticles produced by a method as claimed in ~~any one of the preceding claims~~ Claim 1.